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NEAR REAL TIME WATER RESOURCES DATA FOR RIVER BASIN MANAGEMENT

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Type I Progress Report for Period September 1, 1972--October 31, 1972

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Prepared for:

Goddard Space Flight Center
Greenbelt, Maryland 20771

Type I Progress Report

ERTS-A

a) Title: Near Real Time Water Resources Data
for River Basin Management
ERTS-A Proposal No. MMC #190

b) GSFC ID IN340

c) Statement of any problem impeding the investigation

In the area of image analysis I am receiving imagery covering too wide a geographical area. In the original standing order form too large a geographical area was blocked off and we are receiving copies of imagery from the test site and many peripheral areas. We are also receiving 70 mm transparencies and 252 mm transparencies rather than 252 mm transparencies and prints. A revised standing order form has recently been submitted to correct these problems.

In the area of Data Collection System equipment testing, there have been several technical problems encountered. Yet 15 of the 20 sites have been partially instrumented to include at least the platform and antenna. A detailed list of technical problems and the status of 20 DCS sites can be found in the Data Collection Platform Status Report of 31 October 1972. We are awaiting the real time linkup of the GSFC to the Survey's Current Records Center in Philadelphia. At the writing of the last Type I Progress Report the linkup was scheduled for 15 September, now the latest estimated date is early November.

d) Discussion of accomplishments

Most of the physical labor required to field install the platforms, antennas, and interface equipment has been accomplished. We anticipate being able to finish the field installation before inclement weather becomes a factor in a month or two.

e) Scientific results

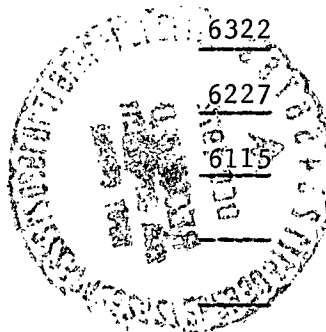
The DCS on ERTS has been tested and appears to work well. As a test of the system and in the interest of ease of installation, several antennas have been installed inside City of Philadelphia Water Department buildings and communication with ERTS has been achieved. The mating of the DCP's with the Leupold Stevens Recorders, used at gaging stations and observation wells, has been achieved with ease. Mating the DCP's to interface equipment with the water-quality monitors has been more difficult, but has been done successfully at some stations.

The amount of useful imagery of the prime area of interest, the Delaware River estuary, is small because of cloud cover. Image ID E 1024-15073 which contains the mouth of Delaware Bay, provides in MSS bands 4 and 5 information on the distribution of sediment in the lower Bay. A cloud free image of the entire estuary is anxiously awaited. Upland imagery in MSS bands 6 and 7 provides good definition of the distribution of lakes, ponds, and rivers. Image ID E 1962 15181-7 can almost be used as a thematic map of the distribution of water bodies in much of the upper Delaware River basin.

- f) Published articles - None
- g) Recommended operational changes - None
- h) Changes in Standing Order form - Made by mail to ERTS User Services
on October 25, 1972
- i) ERTS image descriptor forms - None
- j) History by date of changed Data Request form - None
- k) Status of Data Collection Platforms - Data Collection Platforms with
ID's 6331 and 6371 have failed. DCP ID 6371 is presently being
repaired by G.E. and 6331 is being checked out by us. A list of
functioning DCP's is attached.

DELAWARE RIVER BASIN
EARTH RESOURCES TECHNOLOGY SATELLITE
DATA COLLECTION SYSTEM EXPERIMENT
DATA COLLECTION PLATFORM STATUS REPORT

SEQUENCE NUMBER	STATION NAME	DCP-ID (OCTAL)	STATUS
1 (QW)	SHIP JOHN SHOAL LIGHTHOUSE	_____	_____
2 (QW)	DELAWARE RIVER AT REEDY ISLAND	<u>6124</u>	<u>Platform OK</u>
3 (QW)	DELAWARE RIVER AT DEL. MEM. BR	<u>6344</u>	<u>"</u>
4 (QW)	DELAWARE RIVER AT CHESTER	<u>6332</u>	<u>"</u>
5 (QW)	DELAWARE RIVER AT PIER 11, PHILA.	<u>6275</u>	<u>"</u>
6 (QW)	DELAWARE RIVER AT TORRESDALE	<u>6367</u>	<u>"</u>
7 (QW)	DELAWARE RIVER AT BRISTOL	<u>6343</u>	<u>"</u>
8 (QW)	DELAWARE RIVER AT TRENTON	_____	_____
9 (QW)	DELAWARE RIVER AT EASTON	<u>6312</u>	<u>"</u>
10 (QW)	LEHIGH RIVER AT EASTON	<u>6306</u>	<u>"</u>
11 (QW)	DELAWARE RIVER NR EAST STROUDSBURG	<u>6030</u>	<u>"</u>
12 (QW)	SCHUYLKILL RIVER AT BELMONT	<u>6341</u>	<u>"</u>
13 (SW)	DELAWARE RIVER AT MONTAGUE	<u>6116</u>	<u>"</u>
14 (SW)	DELAWARE RIVER BELOW TOCKS ISLAND	<u>6223</u>	<u>"</u>
15 (SW)	DELAWARE RIVER AT TRENTON	<u>6322</u>	<u>"</u>
16 (SW)	LEHIGH RIVER AT BETHLEHEM	<u>6227</u>	<u>"</u>
17 (SW)	SCHUYLKILL RIVER AT PHILA.	<u>6115</u>	<u>"</u>
18 (GW)	SALEM CITY NUMBER 1	_____	_____
19 (GW)	PENNS GROVE NUMBER 24	_____	_____
20 (GW)	SHELL CHEM. DO. NUMBER 5	_____	_____



DATE October 31, 1972

INITIALS RWP